Claims 1-7, 10-15, 18-23, 26-33, and 46-50 are pending in the subject application. Claims 36-45 have been canceled. Claims 46-50 have been added. Claims 1-7, 10-15, 18-23, and 26-33 stand rejected. The amendments to claims 1-4, 10-12, 18-19, 23, 26-33, and new claims 46-50 find support throughout the specification, such as in the original claims as filed, in Examples 1-6, and in paragraphs [0021], [0027], [0029] through [0034], and [0039]. It is submitted that no new matter has

## Α. Rejection of Claims 1-4, 10-12, and 18-23 under 35 U.S.C. § 102(b)

been introduced by way of amendment to the claims.

Claims 1-4, 10-12, and 18-23 stand rejected under 35 U.S.C. § 102(b) as being anticipated by United States Patent No. 5,766,366, issued to Ferguson et al. ("Ferguson"). Applicants respectfully traverse the rejection and request reconsideration of claims 1-4, 10-12, and 18-23 in view of the amendments and arguments set forth below.

It is respectfully submitted that claims 1-4, 10-12, and 18-23, as amended, are clearly distinct from the teachings of Ferguson. Independent claim 1 recites an acid modified dry-milled starch composition comprising a viscosity profile, wherein at a 14.5% solids concentration, a starting temperature of 30°C, and a heating rate increase of 7.5°C/min, the composition at a time 0 through gelatinization undergoes a viscosity increase to a maximum value in the range of between 600 and 1600 BU torque at a time in the range of between 6.5 to 7.2 minutes, followed by a decrease in viscosity to a

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value in the range of 240 to 640 BU torque at a time of 8.4 minutes, based on a Brabender micro visco amylograph. Claim 18 recites an acid modified dry milled starch composition that, under conditions similar to claim 1, undergoes a viscosity increase to a maximum value in the range of between 600 and 1600 BU torque at a time in the range of between 6.5 to 7.2 minutes, followed by a decrease in viscosity and a subsequent increase in viscosity at the end of a final holding period to a value that is substantially the same as the maximum value, based on a Brabender micro visco amylograph.

The Ferguson reference discloses a dry thinned starch and continuous processes for producing dry thinned starches and the compositions and products thereof. The dry thinned starches are produced by continuously feeding a mixture of a base starch and a chemical which hydrolyses the glycosidic linkage of starch to a plug flow reactor, passing the mixture through the reactor, recovering the mixture, and neutralizing the mixture. As set forth throughout the specification, such as in col. 3. lines 15-60, the Ferguson process is directed to an acid modified starch, obtained from a wet milling process.

For a reference to be anticipatory under 35 U.S.C. § 102, it is axiomatic that the reference must teach, either explicitly or inherently, each and every element of the invention as set forth by the claims.

Unlike Ferguson who teaches an acid modified starch obtained from a wet milling process, claims 1-4 and claims 18-23 of the present disclosure recite an acid modified dry-milled starch. As set forth in the present specification at paragraph [0021].

the term "dry-milled starch" is defined as "the flour product of a processed raw grain in the substantial absence of liquid, as compared to the pure starch of a wet milled cereal grain." Inter alia, paragraph [0021] clearly distinguishes a dry-milled starch (i.e. flour product), as recited in the present claims, from a base starch produced by a wet milling process, such as the composition and process taught by Ferguson.

One of ordinary skill in the art clearly recognizes the difference between an acid modified starch obtained from a wet milling process such as taught by Ferguson, and a dry-milled flour as recited in claims 1-4 and 18-23. This distinction is clearly provided in the present specification, such as at paragraph [0021]. In addition, conventional definitions of flour can be found, for example, in 21 CFR § 137.105, which characterizes flour as having specific processing methods and component ratios of, for example, ash, protein, and moisture content. In contrast, wet milled starch, as taught by Ferguson, is not a dry milled flour product, such as the dry milled corn and milo products, contemplated by the present disclosure.

Like independent claims 1 and 18, claim 10 recites an acid modified drymilled starch. In addition, claim 10 has been amended to further define the dry-milled starch as having a protein content of a cereal flour. Support for the amendment to claim 10 can be found in the specification, for example, at paragraph [0039]. It is submitted that in addition to the teachings of the present specification, 21 CFR § 137, for example, provides clear guidance on cereal flours and what is meant by this term. In this manner, claim 10 further distinguishes an acid modified starch obtained from a wet milling

process, as taught by Ferguson, and a dry-milled flour, as recited in claim 10, and claims 11 and 12 that depend therefrom.

Accordingly, it is asserted that Ferguson does not disclose the acid modified dry-milled starch composition recited in claims 1-4, 10-12 and 18-23. For at least the reasons set forth herein, withdrawal of the rejection under 35 U.S.C. § 102(b) in view of Ferguson is respectfully requested.

## В. Rejection of Claims 5-7, 13-15, and 26-33 under 35 U.S.C. § 102(b)

For at least the reasons set forth in Section A, claims 5-7, that depend from claim 1 and claims 13-15, that depend from claim 10 are clearly distinguishable from the teachings of Ferguson.

Furthermore, claims 26-33 recite an acid modified dry milled flour composition obtained from a process that includes dry-milling a grain, thus forming a flour. Accordingly, for at least the reason that Ferguson clearly teaches an acid modified starch obtained from a wet milling process, claims 26-33 are clearly distinguishable from the teachings of Ferguson.

Accordingly, withdrawal of the rejection of claims 5-7, 13-15, and 26-33 under 35 U.S.C. § 102(b) in view of Ferguson is respectfully requested.

## C. Rejection of Claims 5-7, 13-15, and 26-33 under 35 U.S.C. § 103(a)

Claims 5-7, 13-15, and 26-33 stand rejected under 35 U.S.C. § 103(a) for assertedly being obvious over Ferguson. Applicants respectfully traverse the rejections as set forth herein, and assert that the PTO has failed to establish a prima facie case of obviousness.

As noted by the Examiner, Ferguson discloses a process of making an acid modified starch. The Examiner asserts that because the acid modified starch of Ferguson is made by a process substantially identical to the claimed process, it is reasonably expected that the modified starch of Ferguson is similar to that of the instant claims. Applicants respectfully disagree.

As set forth in Section A, herein, it is respectfully submitted that the wet milling starch process taught by Ferguson is clearly different from the acid modified drymilling flour process recited in claims 5-7, 13-15, and 26-33. As discussed above, unlike Ferguson who teaches an acid modified starch obtained from a wet milling process, present claims 5-7, 13-15, and 26-33 recite an acid modified dry-milled starch (i.e. flour). Indeed, as set forth in paragraph [0021], the dry-milled starch as recited in the present claims is clearly defined and distinguished from a base starch from a wet milling process, such as the starch taught by Ferguson. It is submitted that one of ordinary skill in the art would recognize that the process of obtaining the recited drymilled starch is not substantially identical to the wet milling process employed by Ferguson, as asserted by the Examiner.

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the combination of prior art. In addition, a reasonable expectation of success is required to support a prima facie case of obviousness. In re Clinton, 527 F.2d 1226, 1228, 188 USPQ 365, 367 (CCPA 1976).

Applicants respectfully submit that the teaching of Ferguson cannot form the basis for an obviousness rejection for at least the reasons that: 1) Ferguson fails to teach all the recited elements of claims 5-7, 13-15, and 26-33; and 2) one of ordinary skill in the art would not have a reasonable expectation of success of producing an acid modified dry-milled flour, as set forth in claims 5-7, 13-15, and 26-33. This is so because the teachings of Ferguson are directed to an acid modified starch formed by a wet milling process. As set forth in paragraph [0021] of the present disclosure, the claimed "dry-milled starch" is clearly distinguished from pure starch of a wet milled process. Accordingly, Ferguson does not teach all the claimed elements of claims 5-7, 13-25, and 26-33.

In addition, the teachings of Ferguson provide no reasonable expectation of achieving the advantageous viscosity profile (claims 5-7 and 13-15) or the dry-milled flour composition or related process (claims 26-33) set forth in the claims of the present disclosure. It is respectfully submitted that any assertion to the contrary would be hindsight reconstruction, and/or would amount to an unsupported belief that it would be "obvious to try" such a combination. In re Fine, 837 F.2d 1071, 5 USPQ 1596 (Fed.Cir. 1988); In re Geiger, 815 F.2d 686,688, 2 USPQ 1276, 1278 (Fed.Cir. 1987).

Accordingly, for the reasons set forth herein, the teaching of Ferguson does not establish a prima facie case for obviousness. Accordingly, withdrawal of the rejection under 35 U.S.C. § 103(a) is respectfully requested.

## D. New Claims 46-50

Dependent claims 46, 47, and 49 are directed to acid modified dry-milled starch compositions as set forth in independent claims 1, 18, and 26 respectively, having a fat content of between 0.95 percent and 1.34 percent. Support for these claims can be found, for example, in the Examples. Claim 48 is directed to the composition of claim 47, further comprising a protein content of a cereal flour. Support for this claim can be found, for example, in paragraph [0039]. Independent claim 50 is directed to an acid modified dry-milled starch composition with the recited viscosity profile formed from the group consisting of dry milled milo flour, dry milled corn flour, and combinations thereof. Support for this claim can be found, for example, in the original claims and paragraph [0027].

Newly presented claims 46-50 incorporate all of the elements of the respective independent claims discussed herein and are similarly allowable for at least the reasons set forth herein.

In addition, and as discussed herein, Ferguson is directed to a wet milled starch composition, which is clearly distinct from dry milled flour compositions having the fat content (claims 46, 47, and 49), the protein content (claim 48), or formed from dry milled milo flour, dry milled corn flour, or combinations thereof (claim 50), recited in the claims.

Accordingly, allowance of claims 46-50 is respectfully requested.

Applicants respectfully submit that present claims 1-7, 10-15, 18-23, 26-

33, and 46-50 recite a non-obvious acid modified dry-milled starch composition and

related process. Applicants believe that these claims define over the prior art of record

and are in proper form for allowance.

In view of the foregoing, Applicants respectfully submit that the subject

application is in condition for allowance. Accordingly, reconsideration of the rejections

and allowance of the claims at an early date are earnestly solicited.

If the undersigned can be of assistance to the Examiner in addressing any

additional issues to advance the application to a condition of allowance, please contact

the undersigned at the number set forth below.

Respectfully submitted,

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